AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1-35.   (Canceled)

36.   (Currently amended) A method for translating messages in a multi-protocol environment, the method comprising:

receiving, by a gateway onboard a machine, a first message from a module onboard the machine in a first data link protocol used by the onboard module, the message including a first parameter identifier, and a second message from a module off-board the machine in a second data link protocol used by the off-board module, the message including a second parameter identifier;

determining, by the gateway, whether the first parameter identifier and the second parameter identifier match corresponding parameter ~~identifier~~ identifiers included in a translation table associated with the gateway;

scaling [[the]] a first parameter value contained in the first message to a parameter value consistent with the second data link protocol using a scale factor associated with the matched first parameter identifier, and [[the]] a second parameter value contained in the second message to a parameter value consistent with the first data link protocol using a scale factor associated with the matched second parameter identifier; and

sending a third message including the scaled first parameter value consistent with the second data link protocol to the off-board module using the second data link

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protocol, and a fourth message including the scaled second parameter value consistent with the first data link protocol to the onboard module using the first data link protocol.

37. (Original) The method of claim 36, wherein the first data link protocol is a proprietary data link protocol.

38. (Original) The method of claim 36, wherein the second data link protocol is a non-proprietary protocol including one of a J1939 protocol, a CAN protocol, a MODBUS protocol, a serial standard data link protocol, and an Ethernet protocol.

39. (Currently amended) A system for exchanging information in a multi-protocol environment, the system comprising:

a translation table implemented in a memory device, the translation table including:

at least one parameter identifier,

a plurality of scale factors associated with the at least one parameter identifier, wherein each of the plurality of scale factors corresponds to a different data link protocol. and

a universal storage section for storing a parameter value associated with the at least one parameter identifier; and

a gateway residing onboard a machine and configured to access the translation table. wherein the gateway is configured to:

receive a first message from a module onboard the machine including a first parameter identifier and a first parameter value via a first data link used by the onboard module, and a second message from a module off-board the machine including a second parameter identifier and a second parameter value via a second data link used by the off-board module:

determine whether the first parameter identifier and the second parameter identifier match matches the at least one parameter identifier in the translation table;

when a match is found by the gateway, scale the first parameter value to a value compatible with the second data link, and scale the second parameter value to a value compatible with the first data link, using the [[scaled]] scale factor corresponding to the matched parameter identifier; and

output a third message containing the scaled first parameter value compatible with the second data link to the off-board module via the second data link, and a fourth message containing the scaled second parameter compatible with the first data link protocol to the on-board module via the first data link.

40. (Original) The system of claim 39, wherein the first data link protocol is a proprietary data link protocol.

41. (Original) The system of claim 39, wherein the first data link protocol is a non-proprietary protocol including one of a J1939 protocol, a CAN protocol, a MODBUS protocol, a serial standard data link protocol, and an Ethernet protocol.

42. (Original) The system of claim 39, wherein the second data link protocol is a non-proprietary protocol including one of a J1939 protocol, a CAN protocol, a MODBUS protocol, a serial standard data link protocol, and an Ethernet protocol.

43-48. (Canceled)

49. (Previously presented) The method of claim 36, further including controlling, by the onboard module, a function performed by the machine based on the scaled second parameter value consistent with the first data link protocol contained in the fourth message.

50. (Previously presented) The system of claim 39, wherein the onboard module is configured to control a function performed by the machine based on the scaled second parameter value compatible with the first data link contained in the fourth message.

51-53. (Canceled)